

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions,
and listings, of claims in the application:

5 **Listing of Claims:**

163. (currently amended) A device adapted to be used
in a system for the assessment of at least one
parameter of particles in a liquid analyte material,
10 the a device comprising
- a sample compartment comprising an exposing domain,
 said exposing domain allowing electromagnetic
 signals from a sample in the exposing domain to
 pass to a detection device and to form, in the
15 detection device, a spatial image representation of
 the exposing domain processable by processing means
 of the detection device,
 - an inlet through which a volume of a liquid sample
 representing the analyte material can be
20 introduced,
 - a flow system comprising at least a channel allowing
 at least a portion of the volume of the liquid
 sample to flow within the device,
 - ~~and means for arranging the device in relation to~~
25 the detection device, ~~, which detection device~~
 ~~comprises detection means for quantitatively~~
 ~~detecting spatial image data and processing means~~
 ~~for processing the detected image presentation in a~~
 ~~manner allowing electromagnetic signals from a~~
30 ~~sample in the exposing domain of the device to pass~~

~~to the detection device and to form, in the
detection device, a spatial image representation of
the exposing domain processable by the processing
means of the detection device and means for
5 disengaging the device from the detection device
after the detection by the detection means,~~
- the device having no sample outlet.

164. (currently amended) A device according to claim
10 163, wherein the flow system additionally comprises a
compartment or a flow channel part in which or from
which at least part of one or more reaction components
initially loaded in the compartment or flow channel
part is added to at least a portion of the volume of
15 the liquid sample representing the analyte material.

165. A device according to claim 164, wherein at
least one of the reaction components is in freeze-
dried form.

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166. (currently amended) A device according to claim
163, wherein ~~the~~ part of the ~~flow~~ channel provides
~~substantial~~ laminar flow ~~therethrough and/or comprises~~
~~one or more mixing chambers~~ in the liquid sample.

25

167. (currently amended) A device according to claim
163, wherein ~~the~~ part of the ~~flow~~ channel has at least
one bend or obstruction resulting in ~~substantially~~
turbulent flow in liquid passing the bend or
30 obstruction.

168. (currently amended) A device according to claim
163, wherein the flow system comprises one or more
means for regulating the velocity of the flow into,
within, or out of the device, the velocity regulating
5 means comprising means selected from the group
consisting of: stop valves, one way valves, ~~and~~
pressure valves and/or speed reduction valves.

169. (currently amended) A device according to claim
10 163, ~~which~~ wherein the device comprises means for
performing one or more operations on the liquid
sample, the operations being selected from the group
consisting of filtration, concentration and magnetic
attraction.

15 170. (currently amended) A device according to claim
163, containing one or more compartment(s) or domain
which allows ~~on~~-spectrophotometric measurement for the
determination of any chemical property, the
20 spectrophotometric measurement ~~e.g., one or several~~
~~of,~~ being selected from the group consisting of: mid-
infrared attenuation, near-infrared attenuation,
visible attenuation, ultra-violet attenuation,
photoluminescence, raman scatter, and nuclear magnetic
25 resonance.

171. (currently amended) A device according to claim
163, wherein the interior of the sample compartment
has an average ~~thickness~~ depth of between 20 μm and
30 2000 μm ~~, preferably between 20 μm and 1000 μm , more~~
~~preferably between 20 μm and 200 μm .~~

172. (currently amended) A device according to claim
163, wherein sample compartment has dimensions, in a
~~direction substantially~~ plane parallel to an exposing
window, in the range between 1 mm by 1 mm and 10 mm by
5 10 mm.

173. (currently amended) A device according to claim
163, wherein the volume of the sample compartment from
which electromagnetic radiation is exposed, is in the
10 range between 0.01 μ l and 20 μ l, ~~more preferably in~~
~~the range between 0.04 μ l and 4 μ l.~~

174. (new) A device according to claim 163, wherein
the flow system comprises one or more mixing chambers.

15 175. (new) A device according to claim 163, wherein
the interior of the sample compartment has an average
depth of between 20 μ m and 1000 μ m.

20 176. (new) A device according to claim 163, wherein
the interior of the sample compartment has an average
depth of between 20 μ m and 200 μ m.

25 177. (new) A device according to claim 163, wherein
the volume of the sample compartment from which
electromagnetic radiation is exposed, is in the range
between 0.04 μ l and 4 μ l.

30 178. (new) A device according to claim 163, wherein
the device comprises a propelling means.

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